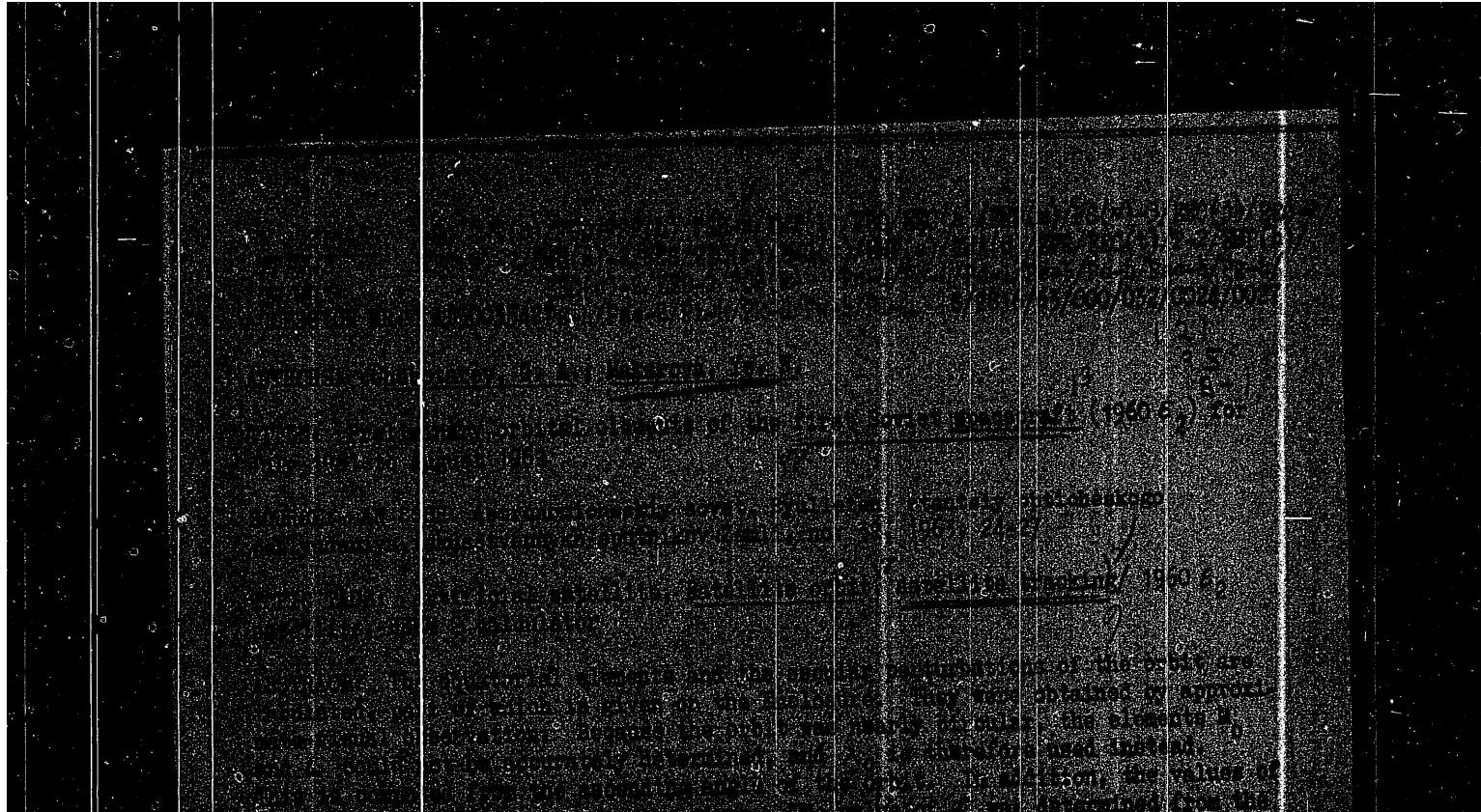


APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031500027-6



CHEBOTAREV, G.A.; NAKAROVA, Ye.N.

Preliminary orbit elements of the first Soviet orbital space-  
ship (1960 $\xi$ ). Biul. sta. opt. nabl. isk. sput. Zem. no.30:  
19-22 '62. (MIRA 16:6)

I. Institut teoreticheskoy astronomii AN SSSR, otdel prikladnoy  
nebesnoy mekhaniki.  
(Artificial satellites--Orbits)

L 19341-63                    EPA(b)/EWT(1)/FCC(w)/FS(v)-2/BDS/ES(v)    AFFTC/AFMDC/ESD-3/SSD/  
APGC / Pd-4/Pe-4/Pi-4/Po-4/Pq-4 TT/GW                    S/0269/63/000/005/0009/0009  
ACCESSION NR: AR3002033    415  
SOURCE: RZh. Astronomiya. Otdel'nyy vypusk. Abs. 5.51.113  
AUTHOR: Chebotarev, G. A.; Makarova, Ye. N.  
TITLE: Preliminary orbital elements of the cabin of the fourth Soviet artificial  
earth satellite (1960 e<sub>3</sub>)  
CITED SOURCE: Byul. st. optich. nablyudenija iskusstv. sputnikov Zemli, no. 28,  
1962, 11-13  
TOPIC TAGS: artificial earth satellite, orbital element  
TRANSLATION: The authors give the mean equatorial orbital elements for the cabin  
of the fourth Soviet artificial satellite from 5 October to 27 December 1961 and  
their secular perturbations. These data were obtained by processing about 3,000  
observations made by 89 Soviet and foreign stations. N. Ya.  
SUB CODE: AI                    ENCL: 00  
DATE ACQ: 30May63

Card 1/1  
111

L 19342-63      EPA(b)/EWT(1)/FCC(w)/FS(v)-2/BDS/ES(v)      AFFTC/AFMDC/BSD-3/  
APGC/SSD Pd-4/Pe-4/Pg-4/Pi-4/Po-4/Pq-4      TT/GW      S/0269/63/000/005/0008/0008  
ACCESSION NR: AR3002032

SOURCE: RZh. Astronomiya. Otdel'nyy vypusk. Abs. 5.51.112

AUTHOR: Chebotarev, G. A.; Makarova, Ye. N.

TITLE: Preliminary orbital elements of the cabin of the first space ship (1960 ε<sub>3</sub>)

CITED SOURCE: Byul. st. optich. nablyudeniya iskusstv. sputnikov Zemli, no. 27,  
1962, 36-41

TOPIC TAGS: satellite orbital elements

TRANSLATION: The authors present a summary of the mean equatorial elements of the orbit of the cabin of the first Soviet space ship (1960 ε<sub>3</sub>), as well as their daily variations from 13 June to 27 September 1961. The elements were determined on the basis of 563 visual and preliminary photographic observations by Soviet and foreign stations. Simplified formulas are given for transforming mean into osculating elements and ways to compare theory and observations. There is a bibliography of 7 items. N. Yakhontova

DATE ACQ: 30May63

SUB CODE: AI

ENCL: 00

Card 1/1

MAKAROVA, Ye.N., Cand Phys Math Sci -- (diss) "Concerning the  
simultaneous determination of the mass of large planets and  
of the systematic errors of stellar catalogues from observations  
of small planets." Len, 1959, 8 pp (Acad Sci USSR. Main Astronomical  
Observatory) 150 copies (ML, 36-59, 111)

MAKAROVA, Ye.N.

Simultaneous determination of systematic errors in stellar cata-  
logs and of masses of planets derived from observation of  
asteroids. Biul.Inst.teor.astron. 7 no.1:1-18 '58.  
(MIRA 13:4)  
(Planets, Minor--Observations) (Mechanics, Celestial)

TER-KARAPETYAN, M.A., akademik; MAKAROVA, Ye.N.

Cultural characteristics of the effect of biotin and nitrogen source on the accumulation of gamma-aminobutyric acid in yeast.  
Dokl. AN Arm. SSR 40 no.2:117-121 '65.

(MIRA 18:5)

1. Armyanskiy nauchno-issledovatel'skiy institut zhivotnovodstva i veterinarii Ministerstva sel'skogo khozyaystva ArmSSR i Institut mikrobiologii AN ArmSSR. 2. AN ArmSSR (for Ter-Karapetyan).  
Submitted July 4, 1964.

MAKAROVA, Ye.N.; OGANESEYAN, S.P.

Effect of vitamins of the B group on the reproduction of yeast.  
Izv. Akad. SSR. Biol. nauki 16 no. 3:45-53 Mr '63. (KIRA 17:10)

1. Nauchno-issledovatel'skiy institut zhivotnovodstva i veterinarii  
Ministerstva proizvodstva i zagotovok sel'skokhozyaystvennykh produk-  
tov ArmSSR i Institut mikrobiologii Akad. ArmSSR.

TER-KARAPETYAN, M.A.; MAKAROVA, Ye.N.

Effect of group B vitamins on the free amino acids of some  
yeast species of the genus Candida. Izv. AN Arm. SSR. Biol.  
nauki 17 no. 1:27-36 Ja '64. (MIRA 17:7)

1. Armyanskiy nauchno-issledovatel'skiy institut  
zhivotnovodstva i veterinarii i Institut mikrobiologii AN  
Armyanskoy SSR.

MAKAROVA, Ye. N.

KOLESOV, V.I., professor (Leningrad, ul. Ligovskaya 5, kv. 5); MAKAROVA,  
Ye.N.; SARIKOVA, n.d.

Efficient use of antibiotics in the treatment of the  
treatment of infection caused by *Escherichia coli*. Vest. Khir.  
76 no.7(13)-21 Ap '77. (MLBn 101)

1. Is possible to improve the results of treatment of V.I. Kolesov  
and Leningrad's medical students and Dr. N.N. Pavlova  
(SCHOOL AND INSTITUTE, MEDICAL FACULTY).

Indeed, results of treatment of patients, (n. 11)  
(KGB 34015, Moscow, 1977),  
was, however, (n. 11)

KAKHETELIDZE, M.G.; MAKAROVA, Ye.M.

Change in the hemopoietin content of the blood serum following blood loss. Probl. gemat. i perel. krovi no. 12: 50-53'62.  
(MIRA 16:8)

1. Iz patofiziologicheskoy laboratorii (zav. - chlen-korrespondent AMN SSSR prof. N.A.Fedorov) Tsentral'nogo ordena Lenina instituta gematologii i perelivaniya krovi ( direktor dotsent A.Ye. Kiselev) Ministertva zdravookhraneniya SSSR.  
(HEMOPOIETIC SYSTEM) (BLOODLETTING)

YNDEMSKIY, L.M. [translator]; BASISTOV, A.G., redaktor; MAKAROVA, Ye.M.,  
redaktor; PINYAGIN, N.B., redaktor; ALEMANOVA, N.S., vedushchiy  
redaktor; TROFIMOV, A.B., tekhnicheskiy redaktor

[Technological systems of the processes of refining oil in the  
United States] Tekhnologicheskie skhemy protsessov pererabotki  
nefti v SShA. Moskva, Gos. nauchno-tekhn. izd-vo neftianoi i gorno-  
toplivnoi lit-ry, 1956. 131 p. (MLRA 9:7)

1. TSentral'nyy nauchno-issledovatel'skiy institut tekhnicheskoy  
informatsii i ekonomiki neftyanoi promyshlennosti.  
(United States--Petroleum--Refining)

POMINOV, I.S.; MAKAROVA, Ye.K.

Study of solutions of cobalt halides in organic solvents at low  
temperatures from the irabsorption spectra. Ukr. fiz. zhur. 9 no.  
5:502-512 My '64. (MIA 17:9)

1. Kazanskiy gosudarstvennyy universitet.

POMINOV, I.S.; MAKAROVA, Ye.K.

Absorption spectra of cobalt chloride solutions in organic solvents  
at low temperatures. Zhur.neorg.khim. 9 no.1:94-98 Ja '64.  
(MIRA 17:2)

1. Kazanskiy gosudarstvenny universitet imeni Ul'yanova-Lenina.

L 46832-66      EWT(m)/EWP(j)/EWP(t)/ETI      IJP(c)      JD/RM  
 ACC NR: AR6010638      SOURCE CODE: UR/0058/65/000/010/D049/D049

AUTHOR: Makarova, Ye. K.; Pominov, I. S.

REF SOURCE: Sb. Itog. nauchn. konferentsiya Kazansk. un-ta za 1963 g. Sekts.:  
paramagnitn. rezonansa, spektroskopii i fiz. polimerov, radiofiz., astron., bion.  
 Kazan, 1964, 45-49

TITLE: The temperature dependence of the absorption spectrum of cobalt chloride in acetone and the binding energies of cobalt ions with molecules of the solvent

SOURCE: Ref. zh. Fizika, Abs. 10D340

TOPIC TAGS: absorption spectrum, nuclear binding energy, temperature dependence

TRANSLATION: It is shown that for solutions of  $\text{CoCl}_2$  in acetone the absorption increases with decrease in temperature in the 400-800  $\mu\text{m}$  range (except in the 720-760  $\mu\text{m}$  range). Absorption decreases in the 600-700  $\mu\text{m}$  range when  $\text{CoCl}_2$  is dissolved in alcohol. This is explained as due to the stability of the cobalt-halogen complexes in the first case, while in the second case the chloride ion complexes can be substituted by the molecules of the solvent at the lower temperatures. The stability of the complexes is established by the change in enthalpy of solutions, and the following sequence was established: methanol > ethanol > butanol > propanol > iso-butanol (iso-butyl alcohol).

SUB CODE: 20/      -SUBM DATE-      none  
 Card 1/1      BLG

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ALL INFORMATION CONTAINED  
HEREIN IS UNCLASSIFIED  
DATE 06/23/11 BY SP/SP/SP

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第16頁  
卷之六  
新編

16

RECEIVED - 1974-03-13 BY BRIAN TTYL V. KELLY 508-617

the first time, I have been able to find a specimen which has been definitely identified.

LABUTIN, A.L.; MAKAROVA, Ye.I.; SEMENOV, A.A.

Use of butyl rubber in anticorrosion rubbers. Kauchuki rez.  
21 no.2:19-21 F '63. (MIRA 16:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut  
sinteticheskogo kauchuka imeni Lebedeva.  
(Butyl rubber)  
(Corrosion and anticorrosives)

22005

S/076/61/035/004/013/018  
B106/B201

Problem of a higher hydrogen ...

| $t, ^\circ C$                     | $\frac{1}{T} \cdot 10^4, ^\circ K^{-1}$ | $min^{-1}$ | $lg k$ | $t, ^\circ C$                   | $\frac{1}{T} \cdot 10^4, ^\circ K^{-1}$ | $min^{-1}$ | $lg k$ |
|-----------------------------------|---|------------|--------|---------------------------------|---|------------|--------|
| (a) Метод равномерного нагревания |   |            |        | (b) Метод постоянных температур |   |            |        |
| -100                              | 5,78                                    | 0,00268    | -2,572 | -100                            | 5,78                                    | 0,0088     | -2,058 |
| -96                               | 5,65                                    | 0,00337    | -2,472 | -92                             | 5,53                                    | 0,0152     | -1,818 |
| -93                               | 5,56                                    | 0,00330    | -2,482 | -78                             | 5,13                                    | 0,0184     | -1,735 |
| -91,5                             | 5,50                                    | 0,00359    | -2,445 | -55                             | 4,58                                    | 0,0291     | -1,536 |
| -80                               | 5,19                                    | 0,00390    | -2,408 | -54                             | 4,57                                    | 0,0231     | -1,636 |
| -67                               | 4,86                                    | 0,00470    | -2,328 | -50                             | 4,45                                    | 0,0385     | -1,414 |
| -57                               | 4,04                                    | 0,00950    | -2,022 | -41                             | 4,31                                    | 0,0831     | -1,080 |
| -50                               | 4,01                                    | 0,0117     | -1,032 |                                 |   |            |        |
| -48                               | 4,45                                    | 0,0400     | -1,398 |                                 |   |            |        |
| -43                               | 4,35                                    | 0,0048     | -1,024 |                                 |   |            |        |

Table: (a) method of uniform heating, (b) method of constant temperatures.

Card 5/5

22005  
S/076/61/035/004/013/018  
B106/B201

Problem of a higher hydrogen ...

condensate is due to the decomposition of the  $H_2O_4$  compound, which takes place by different mechanisms in the solid and in the liquid state. Mention is made of Ye. N. Yeremin, who took part in the work of Ref. 7 together with L. I. Nekrasov and N. I. Kobozev. There are 3 figures, 1 table, and 17 references: 7 Soviet-bloc and 10 non-Soviet-bloc. The three most recent references to English language publications read as follows: M. A. P. Hogg, J. E. Spice, J. Chem. Soc., Sept., 3971, 1957; J. A. Gormley, J. Amer. Chem. Soc., 79, 1862, 1957; R. L. Livingston, J. A. Gormley, H. Zeldes, J. Chem. Phys., 24, 483, 1956.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

SUBMITTED: July 28, 1959

2200<sup>5</sup>  
S/076/61/035/004/013/018  
B106/B201

Problem of a higher hydrogen ...

the second more intensive stage of decomposition takes place, at which the chief oxygen amount escapes. The decomposition is completed at -40 to -30°C. Between -110 and -100°C a hardly noticeable step appears in the curve of gas separation, which characterizes a weak decomposition process in which about 3% of the total oxygen is generated. This weak decomposition is accompanied by the disappearance of the yellowish color and by a modification of the condensate structure: the condensate becomes opaque and begins to melt in places. An analysis of the kinetic curve, taken under isothermal conditions, showed the two-stage decomposition reaction in the temperature range -95 to -40°C to be a reaction of first order. The activation energy amounts to 1.2-1.4 kcal for the first stage of decomposition (with condensate in the solid state), but 8.0-9.0 kcal for the second stage of decomposition. The results substantiate the earlier assumption of the higher hydrogen peroxide H<sub>2</sub>O<sub>4</sub> being contained in

the condensate. The authors reach the conclusion that the assumption put forth by E. Ohara some time ago (Ref. 6) is still the most probable explanation accounting for the results obtained. According to this assumption, the two-stage aspect of the decomposition of the peroxide radical

Card 3/5

22005

S/076/61/035/004/013/018  
B106/B201

Problem of a higher hydrogen ...

studied the decomposition kinetics of such condensates, which were prepared in an apparatus described earlier (Ref. 5: Zh. fiz. khimii, 31, 1843, 1957; Ref. 11: Zh. fiz. khimii, 32, 87, 1958). The water vapor entered the discharge tube at a rate of 1.4 g/hour and a pressure of 0.5 mm Hg. The discharge amperage was 0.2 a, the voltage 1000-1200 v. The cooling trap was cooled with liquid nitrogen. 0.7-0.8 g were the initial amounts of condensate in all experiments. The condensate composition was the same in all experiments; the molar ratio between oxygen generating from decomposition and remaining hydrogen peroxide was always 0.15, the concentration of  $H_2O_2$  in the final solution was 50 percents by weight.

The decomposition of the condensates was studied in an experimental system that had been likewise described earlier. The decomposition of the peroxide radical condensates with slow heating was found to take place essentially in two stages with different temperature coefficients and different activation energies. The first noticeable separation of oxygen takes place between -95 and -70°C for about 17% of the total oxygen formed. The solid condensate starts melting at -70°C; this process comes to an end at -60°C. In this temperature range, and also on a further heating,

Card 2/5

22005

S/076/61/035/004/013/018

B106/B201

11/1310 also 2114

AUTHORS: Skorokhodov, I. I., Nekrasov, L. I., Kobozev, N. I.,  
and Makarova, Ye. I.

TITLE: Problem of a higher hydrogen peroxide and frozen radicals

PERIODICAL: Zhurnal fizicheskoy khimii, v. 35, no. 4, 1961, 905 - 910

TEXT: III. Kinetics of the decomposition of peroxide radical condensate formed from dissociated water vapors  
By peroxide radical condensates the authors designate the products formed by freezing out water- and hydrogen peroxide vapors after dissociation in an electric discharge, and also by the reaction of atomic hydrogen with oxygen or liquid ozone at very low temperatures. Data available in the literature concerning the kinetics of decomposition of these peroxide radical condensates with temperature rise contradict one another as to important items (Ref. 6: E. Ohara, J. Chem. Soc. Japan, 61, 569, 1940; Ref. 7: L. I. Nekrasov, Dis. MGU, 1951; Ref. 8: R. A. Jones, C. A. Winkler, Canad. J. Chem., 29, 1010, 1951). For this reason, the authors

Card 1/5

BERNATSKIY, Yu.P., rukovoditel' raboty; ITKINA, D.Ya.; URUSOV, V.V.;  
MAKAROVA, Ye.I.; SHPUNT, S.Ya.; NAYDENOVA, V.A.; PASTUKHOVA, M.G.  
KOKINA, Z.V.; VODZINSKAYA, Z.V.; LAPSHINA, L.V.; VAS'YANOV, V.P.;  
KUSHNIR, G.F.; NIKITINA, N.A.

Decomposition of phosphogypsum into lime and sulfur dioxide in  
a sevenmeter rotary kiln. [Trudy] NIUIF no.160:152-180 '58.  
(MIRA 12:8)

1. Sotrudniki Nauchnogo instituta po udobreniyam i insektofungisidam  
(for Bernatskiy, Itkina, Urusov, Makarova, Shpunt, Naydenova,  
Pastukhova, Kokina, Vodzinskaya). 2. Sotrudniki Opytnogo zavoda  
Nauchnogo instituta po udobreniyam i insektofungisidam (for Lapshina,  
Vas'yanov, Kushnir, Nikitina).  
(Gypsum) (Lime) (Sulfur dioxide)

MAKAROVA, YE. I.  
KOBZEV, N.I.; SKOROKHODOV, I.I.; NEKRASOV, L.I.; MAKAROVA, Ye.I.

Physical chemistry of concentrated ozone. Part 2: A study of  
the synthesis of the highest peroxide of hydrogen H<sub>2</sub>O<sub>4</sub> by the  
reaction between concentrated ozone with atomic hydrogen [with  
summary in English]. Zhur.fiz.khim.31 no.8:1843-1850 Ag '57.  
(MIRA 10:12)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.  
(Peroxides) (Hydrogen) (Ozone)

MAKAROVA, YE. I. *(Russian handwritten)*

"Physicochemical Investigations of Chlorides of Bivalent Copper."  
Sub 29 Jun 51, Sci Inst of Fertilizers and Insectofungicides of the  
Main Chemical Industry.

Dissertations presented for science and engineering degrees in  
Moscow during 1951.

SO: Sum. No. 480, 9 May 55

MAKAROVA, Ye.I.; FREYDIN, G.S.

Standardization of a method for measuring blood pressure in  
children. Pediatriia no.6:41 '61. (MIRA 14:9)

1. Iz otdela razvitiya i vospitaniya (zav. - chlen-korrespondent  
AMN SSSR prof. H.M. Shchelovanov) Instituta pediatrii AMN SSSR  
(dir. - chlen-korrespondent AMN SSSR prof. O.D. Sokolova-Ponomareva)  
i. Vsesoyuznogo nauchno-issledovatel'skogo instituta meditsinskogo  
instrumentariya i oborudovaniya (dir. - kand.tekhn.nauk I.P.  
Smirnov).

(BLOOD PRESSURE)

MAKAROVA, Ye.I.; KRYLOVA, O.M.

Use of Galperin's method in diagnosing infectious diseases.  
Zhur.mikrobiol.epid. i immun. 30 no.5:140 My '59.  
(MIRA 12:9)  
1. Iz Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo  
instituta.  
(DIAGNOSIS)

MAKAROVA, Ye.I  
MAKAROVA, Ye.I.

Modern methods for the microbiological diagnosis of epidemic hepatitis  
(Botkin's disease). Trudy LSGMI 30:91-96 '56. (MLRA 10:8)

1. Kafedra mikrobiologii Leningradskogo sanitarno-gigiyenicheskogo  
meditsinskogo instituta (zav. kafedroy - prof. M.N.Fisher)  
(HEPATITIS, INFECTIOUS, diagnosis,  
agglut. of bact. adsorbed viruses (Rus))

MAKAROVA, Ye.I.

Blood pressure in infants. Report No. 2: Some data on neural regulation of blood pressure during the first year of life. Pediatriia no.1:59-62 Ja-F '55. (MLRA 8:5)

1. Iz laboratorii vysshey nervnoy deyatel'nosti rebenka (zav. chlen-korrespondent AMN SSSR prof. N.I.Kasatkin) Otdela razvitiya i vospitaniya (zav. chlen-korrespondent AMN SSSR prof. N.M.Shchelovanov) Instituta pediatrii ordena Trudovogo Krasnogo Znameni AMN SSSR (dir. prof. M.N.Kazantseva).

(BLOOD PRESSURE, physiology,  
in inf., variations during feeding)

(INFANT NUTRITION,  
blood pressure variation during inf. feeding)

MAKAROVA, Ye.I.

Precipitation reaction of SB culture with sera from patients with infectious hepatitis. Preliminary report. Trudy ISGMI 46:13-18  
'59. (MIRA 13:11)

1. Kafedra mikrobiologii Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta i laboratoriya Bol'nitsy imeni Botkina (zav. kafedroy i laboratoriyey - prof. M.N.Fisher).  
(HEPATITIS, INFECTIOUS) (STREPTOCOCCUS)

MAKAROVA, N. I.

Blood pressure in infants; ontogenesis and growth factors in modifications  
of blood pressure in infant during the first year of life. *Pediatriia,*  
Moskva no.6:30-34 Nov-Dec 1953. (CIML 25:5)

1. Communication 1. 2. Of the Laboratory of the Higher Nervous Activity  
of the Child (Head -- Prof. N. I. Kasatkin, Corresponding Member Academy  
of Medical Sciences) of the Department of Development and Education  
(Head -- Prof. N. M. Shchelovanov, Corresponding Member AMS USSR) of the  
Order of the Red Banner of Labor Institute of Pediatrics (Director --  
Prof. M. N. Kazantseva) of the Academy of Medical Sciences USSR.

MAKAROVA, Ye. I.

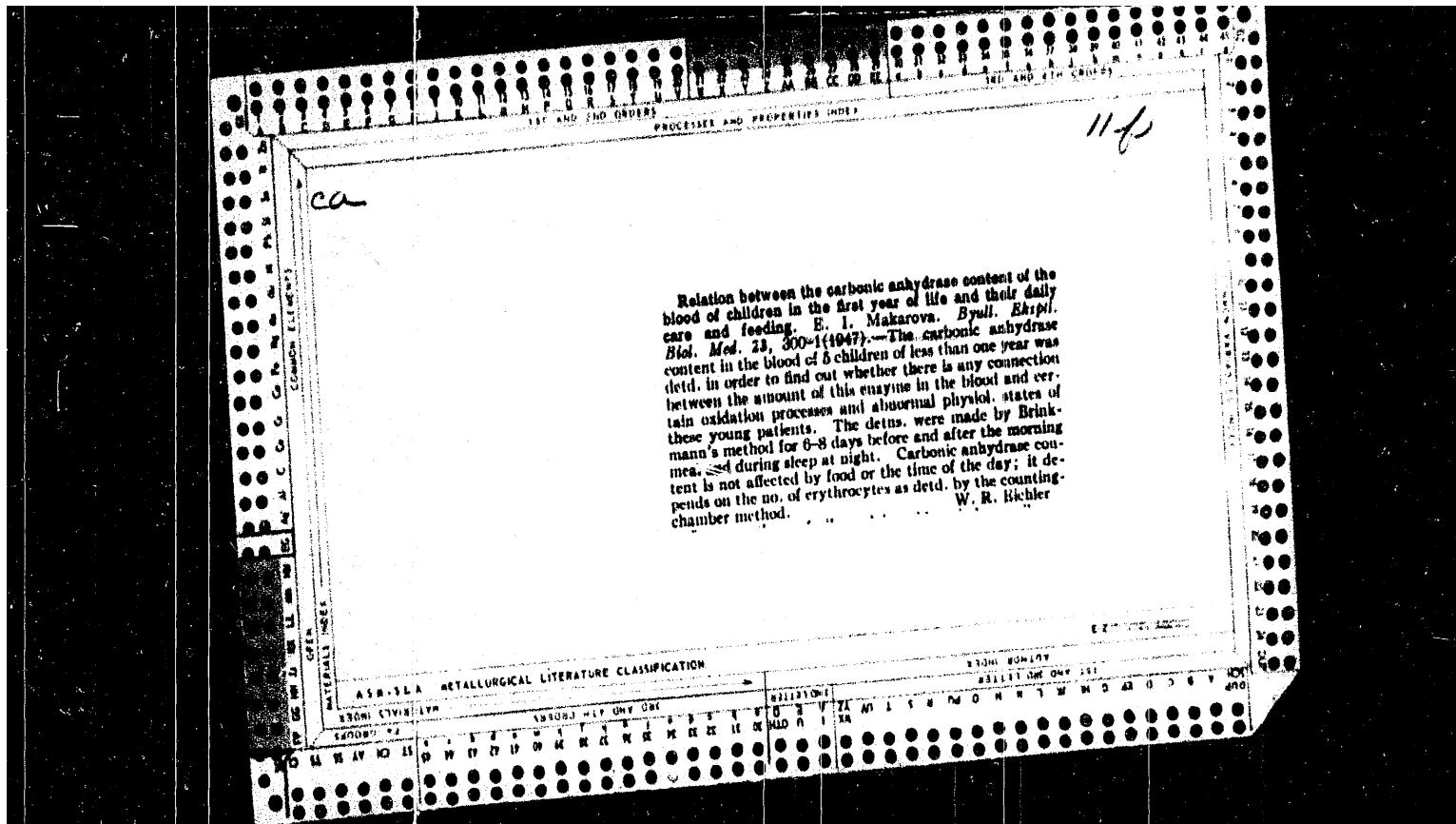
"Some Date on the Ontogenetic and Chronological Investigation of the Blood Pressure of Children During the First Year of Life." Cand Med Sci, Acad Sci USSR, Moscow, 1953. (RZhBiol, No 2, Sep 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (10)

SO: Sum. No. 481, 5 May 55

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031500027-6

Relation between the carbonic anhydrase content of the blood of children in the first year of life and their daily care and feeding. E. I. Makarova. Byull. Akad. Med. Nauk SSSR. No. 10, 1947. The carbonic anhydrase content in the blood of 8 children of less than one year was detd. in order to find out whether there is any connection between the amount of this enzyme in the blood and certain oxidation processes and abnormal physiol. states of these young patients. The detns. were made by Brinkmann's method for 6-8 days before and after the morning meal, during sleep at night. Carbonic anhydrase content is not affected by food or the time of the day; it depends on the no. of erythrocytes as detd. by the counting-chamber method. W. R. Bichler



KONDRAT'YEV, S.N.; ILLARIONOV, V.V.; AMELIN, A.G.; MAKAROVA, Ye.I.

Preparation of stabilized sulfuric anhydride under pilot-plant  
conditions. Trudy MKHTI no.30:205-212 '62. (MIRA 16:10)

MAKAROVA, Ye.G., inzh.; STAROSTENKOVA, A.V., inzh.

Centenary of the "Iskra Oktiabria" linen mill. Tekst.prom.  
19 no.8:64-66 Ag '59. (MIRA 13:1)  
(Kostroma--Linen)

ALEKSANDROV, B.M. --- (continued) Card 2.

1. Russia (1917- R.S.F.S.R.) Karel'skiy ekonomicheskiy administrativnyy rayon. Sovet narodnogo khozyaystva. 2. Karel'skoye otdeleniye Vsesoyuznogo nauchno-issledovatel'skogo instituta ozernogo i rechnogo rybnogo khozyaystva (for Aleksandrov, Aleksandrova, Bel'yayeva, Gorbunova, Gordeyeva-Pertseva, Gordeyeva, Gulyayeva, Dmitrenko, Zabolotskiy, Mekarova, Novikov, Pokrovskiy, Smirnov, Stefanovskaya, Urban). 3. Karel'skiy filial AN SSSR (for Balagurova, Veber, Potapova, Sokolova, Filimonova, Popenko).

(Karelia--Lekees)

ALEKSANDROV, B.M., nauchnyy sotrudnik; ALEKSANDROVA, T.N., nauchnyy sotrudnik; BELYAYEVA, K.I., nauchnyy sotrudnik; GORBUNOVA, Z.A., nauchnyy sotrudnik; GORDEYEVA-PERTSEVA, L.I., nauchnyy sotrudnik; GORDEYEVA, L.N., nauchnyy sotrudnik; GULYAYEVA, A.M., nauchnyy sotrudnik; DMITRENKO, Yu.S., nauchnyy sotrudnik; ZABOLOTSKIY, A.A., nauchnyy sotrudnik; MAKAROVA, Ye.F., nauchnyy sotrudnik; NOVIKOV, P.I., nauchnyy sotrudnik; POKROVSKIY, V.V., nauchnyy sotrudnik; SMIRNOV, A.F., nauchnyy sotrudnik; STEFANOVSKAYA, A.F., nauchnyy sotrudnik; URBAN, V.V., nauchnyy sotrudnik. Prinimali uchastiye: BALAGUROVA, M.V., nauchnyy sotrudnik; WEBER, D.G., nauchnyy sotrudnik; PETAPOVA, O.I., nauchnyy sotrudnik; SOKOLOVA, V.A., nauchnyy sotrudnik; FILIMONOVA, Z.I., nauchnyy sotrudnik; POOPENKO, L.K., nauchnyy sotrudnik. ZITSAR', N.A., red.; PRAVDIN, I.F., red.; PANKRASHOV, A.P., red.; SHEVCHENKO, L.V., tekhn.red.

[Lakes of Karelia; natural features, fishes, and fisheries] Ozera Karelii; priroda, ryby i rybnoe khoziaistvo; spravochnik. Petrozavodsk, Gos.izd-vo Karel'skoi ASSR, 1959. 618 p. (MIRA 13:8)  
(Continued on next card)

MAKAROV, Ye.F

DUBOVSKIY, B.G.; KAMAYEV, A.V.; MAKAROV, Ye.F.

Measurement of the effective cross section of the reaction  $\text{Be}^9(n, 2n) \text{Be}^8$  for fission neutrons. Atom. energ. 2 no.3:279-281 Mr '57.  
(Nuclear reactions) (Neutrons) (MLRA 10:4)

L 29379-66

ACC NR: AP6018621

synthetic hydrocarbon oil MAS-35 // and polymethylphenylsiloxane liquid FM-1322/300. Specification numbers of the oils are given in the source. The thickener concentration varied from 8 to 14%. The preparative procedure of the greases is described in the source. Study of the properties of the greases showed that: 1) they melt at 200—245C; 2) the thickening capacity of sodium terephthalamate and the colloidal stability of the greases can be further improved by using a sodium terephthalamate-sodium benzoate complex (molar ratio: 1/0.5); 3) the basic physicochemical properties of terephthalamate greases are not substantially impaired by  $\gamma$ -radiation doses of  $10^8$  rad. Orig. art. has: 1 figure and 5 tables.

[BO]

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 007/ OTH REF: 012/ ATD PRESS: 5008

Card 2/2 00

L 29379-66 EWP(j)/EWT(m)/T GG/RM/DJ  
 ACC NR: AP601#621 (A) SOURCE CODE: UR/0065/66/000/006/0024/0027

AUTHOR: Makeyeva, Ye. D.; Makhnenko, G. Kh.; Zaslavskiy, Yu. S.

ORG: VNIINP

TITLE: Radiation resistant lubricating greases based on sodium terephthalamate

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 6, 1966, 24-27

TOPIC TAGS: Lubricant, radiation protection

ABSTRACT: Lubricating greases prepared by the thickening of mineral oils and synthetic liquids with terephthalamates, which are asymmetric derivatives of terephthalic acid of the general formula

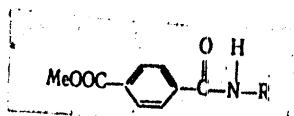


exhibit high radiation resistance, high water repellency, and good structural strength and adhesion to rubbing surfaces at above 200°C. Sodium terephthalamate-base lubricating greases were prepared in two steps: 1) synthesis of sodium terephthalamate, and 2) preparation of greases from mineral oils MS-20s and DS-11.

Card 1/2

UDC: 665.582

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031500027-6

REF ID: A6511

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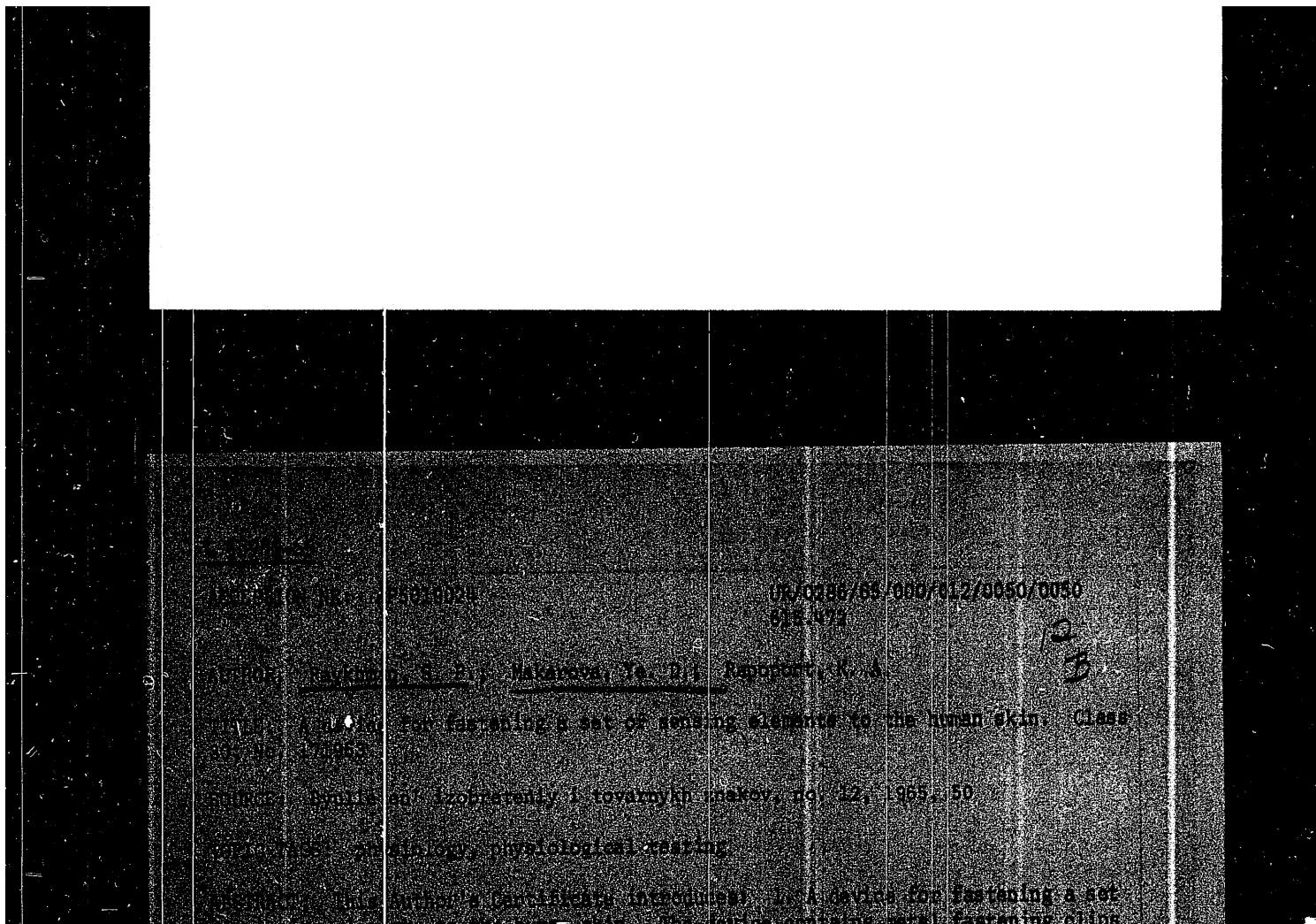
and the social development of the individual (the individual's socialization).

STEER RODS

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031500027-6

RECORDED IN 1944 AND THE STATION THIS DAY IS BEING TESTED ARE  
THE SAME AS THOSE WHICH WERE RECORDED FOR THE BAPTIST CHURCH. THESE TAPES  
WILL BE KEPT FOR A COMMERCIAL RECORDING COMPANY.

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031500027-6



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SOV/137-58-10-21259

Surface Hardening of Gears With Induction (cont.)

36G2S, 35GS, and 50G-grade steel were quenched. G of 36G2S-grade steel showed a high strength in bending tests of the cogs (rupture load of 12.7 - 13, 3 ton) and were referred for testing under shop conditions. Later an inductor was developed which permits carrying out the heating with currents of two frequencies simultaneously. Bibliography: 6 references.

1. Gears--Hardening    2. Induction heating--Applications

T. F.

Card 2/2

SOV/137-58-10-21259

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 10, p 116 (USSR)

AUTHORS: Bogdanov, V. N., Glukhanov, N. P., Makarova, Ye. D.

TITLE. Surface Hardening of Gears With Induction Heating by Currents  
of Two Frequencies (Poverkhnostnaya zakalka shesteren pri  
induktsionnom nagrevе tokami dvukh chastot)

PERIODICAL: V sb.: Prom. primeneniye tokov vysokoy chastoty, Riga, 1957,  
pp 7-18

ABSTRACT: A theoretical basis is provided and the technological process  
and equipment for the two-frequency method of "rim hardening"  
of gears (G) developed by the Scientific Research Institute are  
described. G of a 4.25 module were heated in a one-coil annular  
inductor which was first connected to the source of a low-frequency  
current (1000 cps) (rotating-type frequency changer of 350 kw)  
with a mean specific power output of 1.5 - 1.7 kw/cm<sup>2</sup>, following  
which the inductor was switched over to the source of a high-fre-  
quency current (250 kc) (vacuum-tube oscillator of 400 kw) with  
a specific output of 1.0 - 1.2 kw/cm<sup>2</sup>. Low-frequency heating  
continued for 2.5 - 3 sec, while high-frequency heating lasted  
for 0.6 - 0.7 sec. Experimental batches of G of 45, 45G2,

Card 1/2

MAKAROVA, Ye.A.

Results of a study of the continuous solar spectrum in the region  
of 3100 Å - 6600 Å. Astron. zhur. 42 no.3:681-682 My-Je '65.

(MIRA 18:5)

1. Gosudarstvennyy astronomicheskiy institut im. P.K.Shternberga.

ACCESSION NR: AP4032722

the presence of a depression in the 4700-4800 Å region and an increase of intensity in the 7100-7300 Å region (Fig. 1 and 2 of the Enclosure) detected by the author in 1956. Absorption in the solar atmosphere apparently cannot be explained only by H and H<sup>+</sup> absorption. Other absorption agents are necessary: probably metals in the visible region of the spectrum and hydrogen quasi-molecules in the ultraviolet. Orig. art. has: 2 formulas and 4 tables.

ASSOCIATION: Gosudarstvennyy astronomicheskiy institut im. P. K. Shternberga (State Astronomical Institute)

SUBMITTED: 12Mar63

DATE ACQ: 11May64

ENCL: 02

SUB CODE: AS

NO REF SOV: 008

OTHER: 023

ACCESSION NR: AP4032722

S/0033/64/041/002/0288/0298

AUTHOR: Makarova, Ye. A.

TITLE: Energy distribution in the continuous solar spectrum

SOURCE: Astronomicheskiy zhurnal, v. 41, no. 2, 1964, 288-298

TOPIC TAGS: sun, solar spectrum, astronomy, solar energy

ABSTRACT: The generally accepted energy distribution in the continuous solar spectrum (3300-6600 Å) at the center of the disk is erroneous since it is based on incorrect data. The distribution given by Mulders is out of date since it fails to take into account nine of the most recent investigations and is based essentially only on Abbot's results. The mean weighted energy distribution in the region 3400-8500 Å has been obtained using nine series of measurements in absolute units. It differs basically from that generally accepted. The character of the dependence becomes more evident if a detailed distribution is determined using the most reliable measurements obtained with sufficient resolution. The determined distribution is of satisfactory accuracy for  $\lambda > 3900$  Å. The data are insufficient for shorter wavelengths. The distribution is extended to the infrared region using the relative units devised by Pierce and Peyturaux. These data then have been reduced to absolute units by reference to the detailed distribution. The determined distribution in the photographic spectral region confirms

Card 1/4

ACCESSION NR: AT4035360

and the aureoles caused by light scattering on water vapor particles are small. The water vapor content in the atmosphere in winter is only one-half or one-third as great as in summer. "In conclusion, the authors wish to thank A. I. Kiryukhina, M. S. Murasheva and R. N. Khmeleva, specialists of the Otdel fiziki Sointsa GAISh (Division of Solar Physics of the State Astronomical Institute), for assistance in making the observations and in processing the data". Orig. art. has: 3 formulas, 11 figures and 5 tables.

ASSOCIATION: Gosudarstvennyy astronomicheskiy institut Moskovskogo universiteta  
(State Astronomical Institute, Moscow University)

SUBMITTED: 00

DATE ACQ: 25May64

ENCL: 00

SUB CODE: AA, ES

NO REF Sov: 005

OTHER: 005

Card 3/3

ACCESSION NR: AT4035360

Comparison with approximate calibration in the laboratory reveals a systematic discrepancy, but this only suggests that laboratory experiments must take into account the change in meteorological factors with height in the atmosphere. The water vapor content in the atmosphere is three times less in summer and five times less in winter at the alpine station than over Kuchino (in summer). The water vapor content over the alpine station in summer changes approximately by a factor of two during the day from morning to noon as a result of melting of snow in the nearby mountains. At Kuchino, on a plain, there is no particular change during the day. An increase in the water vapor content toward noon near the alpine station leads to a decrease in the atmospheric transparency coefficient. Since the increase in water vapor content occurs gradually, the Bouguer curve, which is usually used to determine the transparency coefficient, will remain a straight line for the most part but the transparency coefficient computed from this curve will be erroneous. This error increases with a decrease of wavelength and with an increase of the water vapor content of the atmosphere. With an increase of water vapor there is an increase of the solar aureole and an increase of the deformation of images. Similar phenomena caused by the summer melting of snow should be observed at other mountain observatories. In winter, when there is a continuous snow cover, there is no diurnal variation of water vapor content

Card 2/3

*BR*

ACCESSION NR: AT4035360                            8/2623/63/000/126/0003/0024

AUTHOR: Makarova, Ye. A.; Sitnik, G. F.; Kozhevnikov, N. I.

TITLE: Some of the optical properties of the earth's atmosphere and the water vapor content revealed by observations at Kuchino and during the alpine expedition of the State Astronomical Institute (GAISh)

SOURCE: Moscow. Universitet. Gosudarstvennyy astronomicheskiy institut. Soobshcheniya, no. 126, 1963, 3-24

TOPIC TAGS: astronomy, astroclimate, atmospheric optics, atmospheric water vapor content, atmospheric transparency, meteorology

ABSTRACT: The spectrophotometric method was used to determine the water vapor content in the earth's atmosphere at different H<sub>2</sub>O bands from 0.94 to 1.47  $\mu$  with an accuracy of about 5%. The observations were calibrated against aerological data. The calibration curves constructed on the basis of observations at the alpine station and at the Kuchinskaya astrofizicheskaya laboratoriya GAISh (Kuchino Astrophysical Observatory) provide quite reliable data on the water vapor content in the earth's atmosphere. It is concluded that aerological ascents are suitable for the calibration of spectroscopic observations.

MAKAROVA, Ye.A.

Energy distribution in the continuous spectrum of the sun. Astron.  
zhur. 41 no.2:288-298 Mr-Ap '64. (MIRA 17:4)

1. Gosudarstvennyy astronomicheskiy institut im. P.K.Shternberga.

MAKAROVA, Ye.A.; SITNIK, G.F.; KOZHEVNIKOV, N.I.

Some optical properties of the earth's atmosphere and its water vapor content according to observations in Kuchino and during GAISH's high-mountain expedition. Soob.GAISH no.126:3-24 '63. (MIRA 17:2)

MAKAROVA, Ye.A.; SITNIK, G.F.; KOZHEVNIKOV, N.I.

Effect of water vapor on the optical properties of the  
atmosphere. Astron. zhur. 40 no.3:539-543 My-Je '63.  
(MIRA 16:6)

1. Gosudarstvennyy astronomicheskiy institut imeni P.K.  
Shternberga.  
(Atmosphere—Optical properties)

Model of the water vapor ...

S/188/63/000/001/009/014  
B164/B102

and are at different distances from each other. These results show that the absorption coefficient is not constant within the band, so that the amount of absorption measured depends on that section of the band chosen for the investigation. This was confirmed experimentally. A modified formula according to Goody for the residual intensity observed is given by averaging the absorption in the frequency interval of the band considered. The experimental results are discussed on the basis of this formula. They are found to be in satisfactory agreement. There are 5 figures and 2 tables.

ASSOCIATION: Kafedra astrofiziki (Department of Astrophysics)

SUBMITTED: May 11, 1962

Card 2/2

X

45165

S/188/63/000/001/009/014  
B164/B102

3.5150

AUTHORS:

Kozhevnikov, N. I., Makarova, Ye. A., Sitnik, G. F.

TITLE:

Model of the water vapor infrared absorption band

PERIODICAL:

Moscow. Universitet. Vestnik. Seriya III. Fizika,  
astronomiya, no. 1, 1963, 54-61

TEXT: Theoretical models of band absorption are discussed in order to interpret the IR absorption in the  $1.12 \mu$  band by atmospheric water vapor (GAISh no. 126, 1962; VMF no. 6, 1962). The measurements were made with the WKC-11 (IKS-11) spectrograph of the Kuchinskaya astrofizicheskaya observatoriya (Kuchino Astrophysical Observatory) and at the Vysokogornaya stantsiya GAISh (High-mountain Station GAISh) near Alma Ata. The experimental relationship between the residual radiation intensity in the  $1.12 \mu$  band existing after the absorption and the amount of absorbing water vapor is compared with the theoretical results. The agreement with the model of R. M. Goody (Quart. J. Roy. Meteorol. Soc. 78, 165, 1952) is fairly good. The authors calculate the absorption in water vapor on the assumption that the lines in the absorption band have different intensities

Card 1/2 #5/188/62/000/006/014/016

1 11184-63  
ACCESSION NR: AP3001245  
Institute)  
SUBMITTED: 13Feb62  
SUB CODE: AI, PH

DATE ACQD: 01Jul63  
NO REF Sov: 007

ENCL: 00  
OTHER: 003

ch 10

Card 3/3

1 11184-63

ACCESSION NR: AP3001245

2

obtained from aerological soundings performed on observation days. The calibration curves are remarkably similar, even though the observations were performed on different instruments and in climatologically and meteorologically widely differing locales. This would appear to justify the conclusion that calibration by means of aerological soundings may be dependably employed for the spectroscopic determination of the water-vapor content of the atmosphere. At the same time, such aerological calibration differs systematically from the laboratory calibration of F.E.Fowler (Astrophys.J., v.35, 1912, 149; v.37, 1913, 359; v.38, 1913, 392; v.42, 1915, 394). Under summer conditions in high mountainous terrain it was noted that the melting of snow frequently produces an increase (typically, a doubling) in the water-vapor content of the atmosphere from the morning hours to noon. This leads to a substantial change in the optical properties of the atmosphere, most noticeable at high noon and, more especially, during the intrusion of warm air masses into the region of the observations. The present investigation of the change in water-vapor content of the atmosphere and its effect on the optical properties of the atmosphere would appear to be of especial significance in the selection of suitable localities for the positioning of large telescopes. There are 3 figures.

ASSOCIATION: Gos. astronomicheskiy in-t imeni P.K.Shternberga (State Astronomical

Card 2/3

111184-6

INCEPTION NR: AP/001245

EWI(1)/FCC(w)/EDS/ES(v)--AFTTC/APCO/ASD/ESD-3/SSD--Pe-4/Pt-4/R-4--  
8/0033/03/040/003/0539/0543

RB

AUTHOR: Makarov, Ye.A.; Siznik, G.F.; Kozhevnikov, N.I.

78

76

TITLE: On the effect of water vapor on the optical properties of the atmosphere

SOURCE: Astronomicheskiy zhurnal, v. 40, no. 3, 1963, 539-543

TOPIC TAGS: water vapor, optical properties of atmosphere, air-mass properties, meteorological soundings, snow-melt evaporation, spectroscopic humidity measurement, selection of telescope location

ABSTRACT: The paper discusses certain conclusions derived from spectroscopic measurements of the water-vapor content in the terrestrial atmosphere obtained from the IGY observations of the Solar Department of the State Astronomical Institute imeni P.K.Shternberg (GAISH), also parallel measurements at the Kuchino Astrophysical Observatory near Moscow and the GAISH high-mountain expedition Observatory near Alma-Ata (apprx. 3,000 m above msl), using IKS-11 and IKS-6 infrared spectrometers, respectively. The solar spectrum was recorded in the 0.7 to 2.5-micron region, with an instrument resolving power approaching 1.13 micron and with operational values of the width of entrance slit of 0.003 and 0.01 micron for the two instruments, respectively. The calibration curves were

Card 1/3

Absorption of solar ...

S/188/62/000/006/014/016  
B125/B104

represents the features of the absorption of radiation by water vapor. Fowle's curve, which was plotted under laboratory conditions at 760 mm Hg, is suitable only for observations at low altitudes (plane) and not for those at altitudes exceeding 2 - 3 km. There are 5 figures.

ASSOCIATION: Kafedra astrofiziki (Department of Astrophysics)  
SUBMITTED: April 12, 1962

Card 2/2

3,1800  
AUTHORS:

TITLE:

PERIODICAL: Moscow. Universitet. Vestnik. Seriya III. Fizika, astro-nomiya, no. 6, 1962, 73 - 79.

TEXT: It is reported that the calibration curves for the Earth bands of water vapor and oxygen in the solar spectrum differ considerably from the calibration curves of F. E. Fowle (Smithson. Ann., 3, 171, 1913; 3, 182, 1913). These fizicheskaya observatoriya (Kuchin Astrophysical Observatory) and in the Wysokogornaya stantsiya GAIsh (High Mountain Station GAIsh) at Alma Ata during the International Geophysical Year. The zero line was found precisely both cases. In the authors' opinion, their calibration curve correctly

Kozhevnikov, N. I., Makarova, Ye. A., Sitnik, G. F.  
Absorption of solar radiation by water vapor as observed at various altitudes

43927  
S/188/62/000/006/014/016  
B125/B104

41290

S/035/62/000/010/046/128  
A001/A101

AUTHORS: Makarova, Ye. A., Kozhevnikov, N. I., Porfir'yeva, G. A.

TITLE: Determination of extra-atmospheric values of silicon photo-cell yield. Part II. Observations and results

PERIODICAL: Referativnyy zhurnal, Astronomiya i Geodeziya, no. 10, 1962, 58-59,  
abstract 10A403 ("Soobshch. Gos. astron. in-ta im. P. K. Shternberga 1961, no. 116, 25 - 45)

TEXT: The method described in Part I of the article of the same title (abstract 10A402) was applied to determination of the absolute spectral sensitivity of a group of photo-cells. Making use of the experimental linear growth of power obtained from the optimum load of a photo-cell (depending on light intensity), the authors calculated extra-atmospheric values of photo-cell yield by extrapolation of observed values. It amounts to  $4.5 - 9.7 \text{ mw cm}^{-2}$ . There are 9 references.

Ye. A.

[Abstracter's note: Complete translation]  
Card 1/1

Determination of extra-atmospheric values of...

S/035/62/000/010/045/128  
A001/A101

of reflected light amounted to 3 -  $\frac{1}{2}$ % of the incident beam. There are 8 references.

Ye. Antropov

[Abstracter's note: Complete translation]

Card 3/3

Determination of extra-atmospheric values of...  
 hence one obtains

S/635/62/050/C10/045/128  
 A001/A101

$$e\lambda_0 = \frac{\int_{\lambda_1}^{\lambda_2} W_\lambda d\lambda}{\int_{\lambda_1}^{\lambda_2} e\lambda \cdot E_\lambda d\lambda} \quad (2)$$

If one knows  $e\lambda_0$ , the absolute spectral sensitivity can be determined for any  $\lambda$  by Formula (1). To employ Formula (2), one has to know the relative spectral sensitivity. The latter was determined from the known curve of spectral distribution of the source energy. The  $e\lambda$ , magnitude was determined from the Sun. G. F. Sitnik's compensation circuit (RZhAstr, 1957, no 3, 1909) was used in determination of the relative spectral sensitivity. Electrical and optical measurement circuits are described in detail. Comparative studies of time permanence of silicon photo-cell yield have shown that sulfur-silver photocells are somewhat stabler than silicon ones. Directivity diagrams of energy distribution in the light beam reflected from the photo-cell are presented. The full intensity

Card 2/3

41289  
S/035/62/000/010/045/128  
ACG1/A101

26.15.75  
AUTHORS: Kozhevnikov, N. I., Makarova, Ye. A.

TITLE: Determination of extra-atmospheric values of silicon photo-cell yield. Part I. The method of determining absolute sensitivity, investigation of relative spectral sensitivity of photo-cells

PERIODICAL: Referativnyy zhurnal, Astronomiya i Geodeziya, no. 10, 1962, 58, abstract 10A402 ("Soobshch. Gos. astron. in-ta im. P. K. Shternberga", 1961, no. 116, 3 - 24)

TEXT: Efficiency of silicon photo-cells considerably depends on external conditions (temperature, level and spectral range of irradiation) and is also determined by parameters of a circuit connected. The absolute spectral sensitivity is defined as  $e_\lambda = W_\lambda / E_\lambda$ , where  $E_\lambda$  is spectral density of energy incident on the photo-cell, and  $W_\lambda$  is energy yield into the photo-cell external circuit. The method of irradiation with the known irradiative capacity (ribbon tube) was employed for determining  $E_\lambda$ . The relative spectral sensitivity is defined as.

$$\bar{e}_\lambda = e_\lambda / e_{\lambda_0}$$

(1)

Card 1/3

MAKAROVA, Ye.A.; KIRYUKHINA, A.I.

A prominence with nonuniform physical properties along the line of sight. Astron.shur. 38 no.3:543-545 My.Je '61. (MIRA 14:6)

1. Gosudarstvennyy astronomicheskiy institut imeni P.K.Shternberga.  
(Sun—Prominences)

KOZHEVNIKOV, N.I.; MAKAROVA, Ye.A.

Limits of the applicability of Bouguer's method for determining the intensity of light from a celestial source. Astron.zhur. 38 no.3:  
536-540 My-Je '61. (MIRA 14:6)

1. Gosudarstvennyy astronomicheskiy institut imeni P.K.Shternberga.  
(Stars--Radiation)

MAKAROVA, Ye.A.

Using the OSK-3 optical bench for certain investigations of the  
slit of a spectrograph and of objectives. Soob.GAISH no.107:37-  
47 '60. (MIRA 14:3)  
(Spectrograph--Testing)(Lenses--Testing)

DELONE, A.B.; MAKAROVA, Ye.A.; KURT, V.G.

The GAISh coronagraph for outside-eclipse observation. Astren.  
tsir. no.203;3-4 Je '59. (MIRA 13:4)

1. Gosudarstvennyy astronomicheskiy institut im. P.K.Shterberga,  
Moskva.  
(Sun--Corona) (Telescope)

KARIMOV, M.G.; MAKAROVA, Ye.A.; OBASHEV, S.O.

Observation of the structure of the corona in the 5694 Å yellow  
line outside eclipse. Astron.tsir. no.180:20-22 My '57.  
(MIRA 13:4)

1. Astrofizicheskiy institut AN KazSSR i Gosudarstvennyy astronomi-  
cheskiy institut im. Shternberga.  
(Sun--Corona)

MAKAROVA, Ye.A.

Investigating quartz graded filters. Astron. tsir. no.176:9-11  
Ja '57. (MIRA 10:6)

1. Kuchinskaya astrofizicheskaya observatoriya, Gosudarstvennyy  
astronomicheskiy institut im. Shternberga, Moskva.  
(Spectrograph) (Light filters)

A Photometric Investigation of Energy Distribution in the  
Continuous Solar Spectrum in Absolute Units. 33-4-4/19

Photographic results below 3700 Å although not very reliable, do indicate a rapid fall in the intensity of the solar radiation beyond the Balmer series limit. This decrease is much more rapid and deep than has been considered so far. This is in agreement with rocket data (Wilsing et al Ref.31).

There are 8 figures, 3 tables and 31 references, 10 of which are Slavic.

SUBMITTED: November, 1, 1956.

ASSOCIATION: Shternberg State Astronomical Institute, (Gos.Astronomicheskiy In-T im. P. K. Shternberga)  
AVAILABLE: Library of Congress

33-4-4/19

A Photometric Investigation of Energy Distribution in the  
Continuous Solar Spectrum in Absolute Units.

terrestrial source used for comparison (particularly  
in the UV region), and finally (d) to select those parts  
of the solar spectrum which are not affected by absorption  
lines.

The comparison of the spectrum of the solar disc with  
the spectrum of a Phillips lamp was carried out  
photographically in the solar spectrograph of the Kuchino  
observatory in the region 3700 - 8000 Å, the solar  
diameter being 14 cm and the dispersion in the second  
order spectrum 1.6 Å/mm. The derived distribution shows  
an anomaly in the region 4400 - 5600 (in agreement with  
Wilsing Ref.2) and also an increase in the intensity in  
the region 6800 - 7400 Å. The absolute values of energy  
in the investigated region lie between those determined  
by Abbot in 1902 - 1910 and 1920 - 1922, and agreed best  
with the data of Wilsing. Contemporary data based on the  
work of Chalonge et al and Kanavadzh in the region  
4000 - 6000 Å are definitely low. According to all  
data, the maximum of the energy distribution in the  
continuous spectrum of the solar disc lies near 4300 Å.

Card 3/4

33-4-4/19

A Photometric Investigation of Energy Distribution in the  
Continuous Solar Spectrum in Absolute Units.

Three independent determinations of the distribution of energy in the continuous spectrum of the whole solar disc in absolute units exist: Abbot et al (Ref.1); Wilsing, J. (Ref.2); all other determinations were carried out in relative units and in a relatively narrow spectral region. There are some inconsistencies in these determinations. Therefore, the energy distribution in the continuous spectrum in the centre of the solar disc in absolute units was measured again at the Kutchino Astrophysical Observatory under the direction of G. F. Sitnik. A black body source of the solar spectrograph of the Kutchino Observatory was used for comparison.

In practice, the solar spectrum was compared with the spectrum emitted by a standard lamp, the spectrum of which was in turn compared with the black body emitter. To determine the energy distribution in the continuous spectrum of the centre of the solar disc it is necessary to solve the following problems: (a) losses in the Earth's atmosphere; (b) losses in the optical system; (c) differences in the brightness of the sun and the

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MAKAROVA, YE. A.

AUTHOR: Makarova, Ye. A.

33-4-4/19

TITLE: A Photometric Investigation of Energy Distribution in the Continuous Solar Spectrum in Absolute Units.  
(Issledovaniye raspredeleeniya energii v nepreryvnom spektre solntsa v absolyutnykh yedinitakh fotograficheskim putem).

PERIODICAL: Astronomicheskiy Zhurnal, 1957, Vol.34, No.4 ,pp.539-556  
(USSR).

ABSTRACT: Data on the distribution of energy in the continuous solar spectrum of the solar disc in absolute units, and the results of observations of the darkening of the solar disc towards its limb can be used to solve one of the main problems of astrophysics, namely, the laws governing changes in the temperature, pressure, density, and other physical characteristics with depth in the solar photosphere. This, of course, is equivalent to a construction of a model of the solar atmosphere. Such a model plays an important part in the interpretation of absorption lines in the solar spectrum. Finally, a knowledge of the distribution of energy in the solar spectrum also has a purely practical value for example, in actinometry.

Card 1/4

MAKAROVA, YE. A. Doc Cand Phys-Math Sci -- (diss) "Study of  
the distribution of energy in the center of the sun's disk  
in the absolute units by <sup>means</sup> ~~the use~~ of the photographic method."  
Mos, 1957, 9 pp 22 cm (Moscow State Univ im M.V. Lomonosov.  
State <sup>Astronomical</sup> Inst of Astronomy im P.K. Shternberg), 100 copies  
(KL, 21-57, 98)

MAKAROVA, Ye.A.

One error in D. Chalonge and R. Canavaggia's work "Studying the continuous solar spectrum". Astron. tsirk. no. 175:10-12 D '56.  
(MLRA 10:5)

1. Kuchinskaya Astrofizicheskaya observatoriya, Moskva.  
(Spectrum, Solar)

Periodical: Dok. AN SSSR, 1067-1068, Feb 21, 1955

Card 2/2 Pub. 22 - 9/47

Abstract: Tests showed that this filter can also be effectively applied for the study of the chromosphere and prominences. The semi-width of the filter band pass is 0.9 Å. Prominence photos obtained by means of the IPST-3934 filter are included. Four references: 3 USSR and 1 USA (1949-1953). Graphs; illustrations.

MAKAROVA, E. A.

USSR/Physics - Interference-polarization light filtration

Arch 1/2 Sub. 22 - 9/47

Authors : Millberg, A. B.; Distler, G. I.; and Makarova, E. A.

Title : Interference-polarization light filter for K-lines of ionized calcium

Periodical : Dok. AN SSSR, 100/6, 1067-1069, Feb 21, 1955

Abstract : Announcement is made about the design and construction of the IPSF-3934 interference-polarization light filter for astrophysic investigations of solar spectra. The filter consists of 9 quartz elements and 10 polarizers with a thickness of the last quartz plate of 52.6mm.

Institution : Academy of Sciences USSR, Institute of Crystallography

Presented by : Academician A. V. Shubnikov, November 11, 1954

MAKAROVA, Ye. A.

MITRA, S.K.; ROSENBERG, G.V., [translator]; MAKAROVA, Ye.A., [translator]  
KRAKOVSKIY, V.I., redaktor; AL'PERT, Ya.L., redaktor; YEGOROVA,  
N.E., redaktor; SHAPOVALOV, V.I., tekhnicheskij redaktor.

[The upper atmosphere. Translated from the English] Verkhniaia  
atmosfera. Perevod s angliiskogo G.V.Rozenberga i E.A.Makarovoij.  
Pod. red. V.I.Krasovskogo i Ia L.Al'perta. Moskva, Izd-vo Inostrannoi  
lit-ry, 1955. 639 p. [Microfilm] (MLRA 9:1)  
(Atmosphere, Upper)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031500027-6

Table 1 gives the equations for calculating the temperatures of a terrestrial planet's surface and atmosphere at various distances from the Sun.

U.S. Government's Contract No. AF-33(67)-10000, dated January 1, 1967, between the U.S. Government and Lockheed Corporation, for the construction of the Cessna 441 Conquest II aircraft.

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031500027-6

MAKAROVA, Ye.

New elements for planet 941 Murray. Astron.tsir. no.144:8-9 D '53.  
(MLRA 7:6)

(Planets, Minor--941)

MAKAROVA, Ye.A.

Fall of meteorites on the moon. Priroda 42 no.9:127-128 S '53. (MIA 6:2)

1. Gosudarstvennyy astronomicheskiy institut imeni P.K.Shternberga pri Mo-  
skovskom gosudarstvennom universitete. (Meteorites)

MAKAROVA, Ye.A.

Effect of photographic fog on the measurement of relative intensities.  
Trudy GAISH 22:133-138 '53.

(MLRA 7:5)  
(Photometry, Astronomical)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031500027-6

VANKEROVÁ, Ye. A.

Determination of residual nitrogen in blood. E. A.  
Vankurová. Vrachenske Dole 1933, No. 6, 471-2. Reform.  
MD 228er., Khim. 1954, No. 41314. E. Wierzbicki

MAKAROVA, YE. A.

Makarova, Ye. A.

"On the Calculation of the Cruciform Winding of High-Speed Belt Machines  
for Wool Fiber." Min Higher Education USSR. Moscow Textile Inst. Moscow,  
1955 (Dissertation for the degree of Candidate in Technical Science)

SO: Knizhnaya letopis' No. 27, 2 July 1955

LIZORKIN, V.; MAKAROVA, Ye.; KHROMCHENKO, L.; SINTSOVA, A.; VINOKUROVA, V.

Rapid method for curing meat for sausage manufacture. Mias.  
Ind.SSSR 30 no.1:13 '59. (MIRA 12:4)

1. Nauchno-issledovatel'skoye byuro Stalingradskogo myasotresta.  
(Sausages)

USSR / Soil Science. Physical and Chemical Properties J  
of Soil.

Abs Jour : Ref Zhur - Biologiya, No 11, 1958, No. 48618

mainly produced through the content of free and  
movable sesquioxides of humic acids. -- S. K.  
Nikitin

Card 2/2

USSR / Soil Science. Physical and Chemical Properties J  
of Soil.

Abs Jour : Ref Zhur - Biologiya, No 11, 1958, No. 48618

Author : Plotnikov, A. A.; Makarova, V. V.

Inst : Ivanovo Agricultural Institute

Title : Dynamics of Soil Structure and Humus in Grass,  
Crop Rotation Using a Layer Under Spring Wheat,  
Winter Rye, and Potatoes

Orig Pub : Sb. nauchn. tr. Ivanovsk. s.-kh. in-ta, 1956,  
vyp 14, 16-21

Abstract : In experiments on turf-podzolic soils in Ivanovskaya Oblast' towards the end of crop rotation, an increase of 0.24% in humus content, and an increase of from 13 to 30% in water-stable aggregates was observed in the soils. The structural composition of the soil was

Card 1/2

PLOTNIKOV, A.A.; MAKAROVA, V.V.

Efficient utilization of seed in grassland crop rotations on  
turf-Pedzelic soils [with German summary in insert]. Pochvovedenie  
no.4:80-86 Ap '56. (MLRA 9:9)

1.Ivanovskiy sel'skokhozyaystvennyy institut.  
(Pedzel) (Rotation of crops)

MAKAROVA, V.V.

MASLOV, M.S., professor, zasluzhenyy deyatel' nauki, deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR; ZAYTSEVA, G.I., kandidat meditsinskikh nauk, sekretar'; KURYLEVA, O.M.; BRONSHTEIN, A.I.; PETROVA, Ye.P.; MALAKHOVSKAYA, D.B.; ITINA, N.A.; MAKAROVA, V.V.; KREAKOVA, T.N.; ORBELI, L.A., akademik; VOLOVIK, A.E., professor; TUR, A.F., professor; BYSTROLETVA, G.I.; DANILEVICH, M.G., professor; KUZMICHEVA, A.G., dozent; BEKHTEREVA, M.I.; ALEKSANDROVA, V.R.

Minutes of the meetings of the Leningrad Society of Pediatricians. Vop. pediat. 21 no.2:60-62 Mr-Ap '53. (MLRA 6:6)

1. Leningradskoe obshchestvo detskikh vrachei. 2. Akademiya meditsinskikh nauk SSSR (for Maslov). (Reflexes) (Scarlet fever)

1. MAKAROVA, V. T. Prof.
2. USSR (600)
4. Public Works
7. Introductory speech by Prof. V. T. Makarova, Rector of Tomsk University. Trudy, Tomsk, un. 114, 1951.
9. Monthly List of Russian Accessions, Library of Congress, March 1953, Unclassified.

PETROV, Ye.G., kand. sel'skokhoz. nauk; BORCHENKO, V.I., kand. sel'skokhoz. nauk; SID'KO, A.A., kand. sel'skokhoz. nauk; MAKAROVA, V.S., kand. sel'skokhoz. nauk; MYASISHCHEV, S.I., inzh.

Leaching salinized soils in rice growing. Gidr. i mel. 17  
no.10:1-14 O '65. (MIRA 18:10)

MAKAROVA, V.S., kand.tekhn.mauk

Reservoir in a coat. Izobr.i rats. no.5 (201): 46 '63.  
(MIRA 16:7)

1. Laboratoriya protivofil'tratsionnykh meropriyatiy Vsesoyuznogo  
nauchno-issledovatel'skogo instituta gidrotekhniki i melioratsii  
im. Kostyakova.

(Irrigation research)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031500027-6

MAKAROVA, V.S.; KUZNETSOV, V.I.

Effect of monomolecular films on evaporation from the surface  
of water. Trudy GGI no.91:5-13 '61. (MIRA 14:2)  
(Evaporation)  
(Films(Chemistry))  
(Alcohols)

MAKAROVA, V.S.; MKHITARYAN, A.M.

Experiments with monomolecular films in the reduction of evaporation  
carried out on the shore of Lake Sevan. Izv. AN Arm. SSR. Ser.  
tekhn. nauk 14 no.3:43-57 '61. (MIRA 14:8)  
(Sevan Lake region--Evaporation) (Films (Chemistry))

MAKAROVA, V.S., kand.tekhn.nauk

Use of monomolecular films to reduce evaporation losses from  
water surfaces. Gidr. i mel. 12 no.11:61-64 N '60.

(MIRA 14:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrotekhniki  
i melioratsii.  
(Evaporation) (Films (Chemistry))